

CLAIMS

1. (Currently Amended) A poultry feed diet composition for poultry, the poultry feed diet composition comprising a balanced feed composition plus a citrus feed supplement, said feed supplement being particles of a substantially untreated citrus byproduct selected from the group consisting of dried citrus peel, citrus pulp, citrus flavedo, citrus albedo, citrus rags and combinations thereof generated by citrus juice expressing from citrus fruit, or pulp from citrus operations which generate citrus peel or pulp byproduct or waste during citrus juice extraction, and said citrus feed supplement being at a concentration of not more than 1.5 weight percent, based on the total weight of the poultry feed diet composition.

Claim 2 (Cancelled)

3. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus feed supplement is at a concentration of at least about 0.2 weight percent and up to about 1 weight percent, based upon the total weight of the poultry feed diet composition.

Claim 4 (Cancelled)

5. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus feed supplement is at a concentration of not greater than about 24 pounds per ton of feed diet composition.

6. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus feed supplement is at a concentration of at least about 4 pounds and up to about 16 pounds per ton of feed diet composition.

7. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus byproduct has a moisture content of between about 5 and about 12 percent by weight, based upon the total weight of the citrus byproduct.

8. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus feed supplement citrus particles comprise dried citrus byproduct flake.

9. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus feed supplement citrus particles comprise pelletized dried citrus byproduct.

Claim 10 (Cancelled)

11. (Original) The poultry feed diet composition in accordance with claim 1, wherein said citrus byproduct of the citrus feed supplement is a dried and limed byproduct which had been ground to a particle size of about 2mm or less to provide said citrus particles.

12. (Currently Amended) The poultry feed diet composition in accordance with claim 1, wherein said citrus byproduct feed supplement includes a combination of by product components, each in its native state as present in dried citrus byproduct from juice extraction equipment.

Claim 13-17 (Cancelled)

18. (Original) The poultry diet feed composition in accordance with claim 12, wherein said citrus byproduct components include pectin, demethylated pectin, citric acid, folic acid, ascorbic acid, a carotenoid, beta-carotene, beta-cryptoxanthin, lycopene, xanthophyll, naringin, naringenin, narirutin, hesperidin, hesperetin, sinensetin, tangeretin, nobiletin, alpha-tocopherol, limonin, nomolin, a limonin glucoside, and d-limonene.

19. (Original) The poultry diet feed composition in accordance with claim 12, wherein said citrus byproduct components include a pectin, a food grade acid, ascorbic acid, a

carotenoid, a citrus originating flavonoid, a citrus originating polymethoxylated flavone, and a tocopherol.

20. (Currently Amended) A process for enhancing commercial poultry operations, comprising:

supplying a confined space having a poultry feeding area;  
providing a poultry feed diet composition which comprises a balanced feed composition and a citrus feed supplement, said citrus feed supplement being particles of a substantially untreated citrus byproduct selected from the group consisting of citrus peel, citrus pulp, citrus flavedo, citrus albedo, citrus rag and combinations thereof generated by expressing citrus juice from citrus fruit of dried citrus peel or pulp from citrus operations which generate citrus peel or pulp byproduct or waste during citrus juice extraction, said citrus feed supplement being at a concentration of not more than 1.5 weight percent, based on the total weight of the poultry feed diet composition; and

placing said poultry feed diet composition within the poultry feeding area and confining poultry in the confined space, thereby having the poultry feed on the poultry feed diet.

Claim 21 (Cancelled)

22. (Original) The process in accordance with claim 20, wherein said citrus feed supplement is at a concentration of at least about 0.2 weight percent and up to about 1 weight percent, based upon the total weight of the poultry feed diet composition.

23. (Original) The process in accordance with claim 20, wherein said citrus feed supplement is at a concentration of at least about 4 pounds and up to about 16 pounds per ton of feed diet composition.

24. (Original) The process in accordance with claim 20, wherein said citrus byproduct has a moisture content of between about 5 and about 12 percent by weight, based upon the total weight of the citrus byproduct.

25. (Currently Amended) The process in accordance with claim 20, wherein said citrus feed supplement ~~comprises~~ citrus particles ~~of~~ comprise dried citrus byproduct flake.

26. (Currently Amended) The process in accordance with claim 20, wherein said citrus feed supplement ~~comprises~~ citrus particles ~~of~~ comprise pelletized dried citrus byproduct.

Claim 27 (Cancelled)

28. (Original) The process in accordance with claim 20, wherein said citrus byproduct of the citrus feed supplement is a dried and limed byproduct which had been ground to a particle size of about 2mm or less to provide said citrus particles.

29. (Currently Amended) The process in accordance with claim 20, wherein said citrus ~~feed supplement~~ byproduct includes a combination of byproduct components, each in its native state as present in dried citrus byproduct from juice extraction equipment.

Claim 30 (Cancelled)

31. (Previously Presented) The process in accordance with claim 20, further including:  
continuing said confining and having the poultry fed for a length of time adequate for the poultry to grow to poultry of a size suitable for commercial meat supply use; and

providing through said process a quality characteristic of the thus raised poultry which is improved when compared with the same characteristic of poultry chicks raised in the same manner on said balanced feed composition in the absence of said citrus feed supplement.

32. (Original) The process in accordance with claim 31, further including calculating an adjusted feed conversion value for the poultry raised according to the process, said adjusted feed conversion value being less than that of poultry raised on a feed comprising

said balanced feed composition and a feed supplement comprised of hesperidin, limonin glucoside and citrus pectin which are not in a native state as present in dried citrus byproduct from citrus juice extraction equipment.

33. (Previously Presented) The process in accordance with claim 20, further including calculating a feed conversion value for the poultry feed diet expended, said feed conversion value being less than that for a feed comprising said balanced feed composition and a feed supplement comprised of hesperidin, limonin glucoside and citrus pectin which are not in a native state as present in dried citrus byproduct from citrus juice extraction equipment.

34. (Previously Presented) The process in accordance with claim 20, further including calculating a feed conversion value for the poultry feed diet expended, said feed conversion value being less than that for a feed comprising said balanced feed composition in the absence of said citrus feed supplement.

35. (Original) The process according to claim 31, further including detecting average ammonia levels in the confined space at the completion of said continuing procedure, said average ammonia level being less than that of the same process which omits use of the citrus feed supplement.

36. (Original) The process according to claim 31, further including determining an HDL level of said poultry after said continuing procedure, said HDL level being greater than that of the same process which omits use of the citrus feed supplement.

37. (Original) The process according to claim 20, further including providing the citrus feed supplement into the poultry feeding area in the absence of an extraction being practiced upon the citrus byproduct peel and pulp component.

38. (Original) The process according to claim 20, wherein the providing of said citrus feed supplement places citrus byproduct into the poultry feed diet without purifying the citrus byproduct present in the citrus feed supplement.

39. (Original) The process according to claim 20 wherein the providing of said citrus feed supplement places citrus byproduct into the poultry feed diet without extracting the citrus byproduct present in the citrus feed supplement.